OIPE
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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Mount et al.	Examiner: Not Assigned
Serial No.: 09/835,976	Group Art Unit: Not Assigned
Filed: April 16, 2001	Docket No.: 1242/26/2
Confirmation No.: 3961	

#5/a

For: PURIFIED AND ISOLATED POTASSIUM-CHLORIDE COTRANSPORTER NUCLEIC ACIDS AND POLYPEPTIDES AND THERAPEUTIC AND SCREENING METHODS USING SAME

* * * * * * * * * * * *

STATEMENT THAT SEQUENCE LISTING AND COMPUTER READABLE COPY ARE THE SAME

Commissioner for Patents
Washington, D.C. 20231

Sir:

In accordance with 37 C.F.R. § 1.821(f), applicants hereby state that the Sequence Listing information recorded in computer readable form is identical to the written Sequence Listing on paper.

Although a check is being submitted, the Commissioner is hereby authorized to charge any deficiency or credit any overpayment associated with the filing of this correspondence to Deposit Account Number **50-0426**.

Respectfully submitted,

JENKINS & WILSON, P.A.

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Customer No. Bar Code Label: |||||||||||||||||
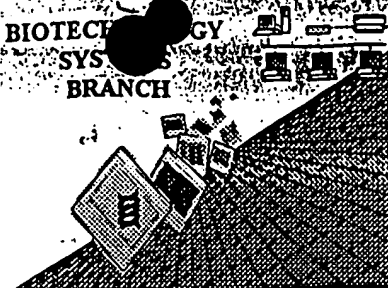
1242/26/2   AAT/ajm   **25297**
PATENT TRADEMARK OFFICE

BIOTECHNOLOGY
SYSTEMS
BRANCH

RAW SEQUENCE LISTING
ERROR REPORT

MAR 0 4 2002

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: _09/835,976_

Source: _OIPE_

Date Processed by STIC: _5/8/2001_

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY
FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.
PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)
PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.
Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO).
Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:
http://www.uspto.gov/web/offices/pac/checker

ERROR DETECTED SUGGESTED CORRECTION   SERIAL NUMBER: _09/835,996_

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1 _____ Wrapped Nucleics   The number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".

2 _____ Wrapped Aminos   The amino acid number/text at the end of each line "wrapped " down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".

3 _____ Incorrect Line Length   The rules require that a line not exceed 72 characters in length. This includes spaces.

4 _____ Misaligned Amino Acid   The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs
Numbering   between the numbering. It is recommended to delete any tabs and use spacing between the numbers.

5 _____ Non-ASCII   This file was not saved in ASCII (DOS) text, as required by the Sequence Rules.
Please ensure your subsequent submission is saved in ASCII text so that it can be processed.

6 _____ Variable Length   Sequence(s) _____ contain n's or Xaa's which represented more than one residue.
As per the rules, each n or Xaa can only represent a single residue.
Please present the maximum number of each residue having variable length and
indicate in the (ix) feature section that some may be missing.

7 _____ PatentIn ver. 2.0 "bug"   A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid
sequence(s) _____. Normally, PatentIn would automatically generate this section from the
previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section
to the subsequent amino acid sequence. **This applies primarily to the mandatory <220>-<223>
sections for Artificial or Unknown sequences.**

8 _____ Skipped Sequences   Sequence(s) _____ missing. If intentional, please use the following format for each skipped sequence:
(OLD RULES)   **(2) INFORMATION FOR SEQ ID NO:X:**
(i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS")
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X:
This sequence is intentionally skipped

Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).

9 _____ Skipped Sequences   Sequence(s) _____ missing. If intentional, please use the following format for each skipped sequence.
(NEW RULES)   **<210> sequence id number**
<400> sequence id number
000

10 _____ Use of n's or Xaa's   Use of n's and/or Xaa's have been detected in the Sequence Listing.
(NEW RULES)   Use of <220> to <223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

11 _____ Use of "Artificial"   Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules.
(NEW RULES)   Valid response is Artificial Sequence.

12 _____ Use of <220>Feature   Sequence(s) _____ are missing the <220>Feature and associated headings.
(NEW RULES)   Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial Sequence" or "Unknown"
Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32)   (Sec. 1.823 of new Rules)

13 _____ PatentIn ver. 2.0 "bug"   **Please do not use "Copy to Disk" function of PatentIn version 2.0.** This causes a corrupted
file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing).
Instead, please use "File Manager" or any other means to copy file to floppy disk.

AMC - Biotechnology Systems Branch - 4/06/2001

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/835,976

DATE: 05/08/2001
TIME: 15:55:17

Does Not Comply
Corrected Diskette Needed

see
pp 4-7

Input Set : A:\PTO.txt
Output Set: N:\CRF3\05082001\I835976.raw

```
 3 <110> APPLICANT: Mount, David B.
 4        Delpire, Eric
 5        Gamba, Gerardo
 6        Alfred L. George, Jr.
 8 <120> TITLE OF INVENTION: PURIFIED AND ISOLATED POTASSIUM-CHLORIDE COTRANSPORTER NUCLEIC ACIDS
AND
 9        POLYPEPTIDES AND
10        THERAPEUTIC AND SCREENING METHODS USING SAME
12 <130> FILE REFERENCE: Attorney Docket No. 1242-26-2
14 <140> CURRENT APPLICATION NUMBER: US/09/835,976
15 <141> CURRENT FILING DATE: 2001-04-16
17 <160> NUMBER OF SEQ ID NOS: 131
19 <170> SOFTWARE: PatentIn Ver. 2.1
```

ERRORED SEQUENCES

p.4

```
4644 <210> SEQ ID NO: 16
4645 <211> LENGTH: 1150
4646 <212> TYPE: PRT
4647 <213> ORGANISM: Homo sapiens
4649 <220> FEATURE:
4650 <221> NAME/KEY: misc_feature
4651 <222> LOCATION: (35)
4652 <223> OTHER INFORMATION: Xaa=Leu or Ile
4654 <220> FEATURE:
4655 <221> NAME/KEY: misc_feature
4656 <222> LOCATION: (346)
4657 <223> OTHER INFORMATION: Xaa=Leu or Ile
4659 <220> FEATURE:
4660 <221> NAME/KEY: misc_feature
4661 <222> LOCATION: (789)
4662 <223> OTHER INFORMATION: Xaa=Leu or Ile
4664 <400> SEQUENCE: 16
4665 Met His Pro Pro Glu Thr Thr Thr Lys Met Ala Ser Val Arg Phe Met
4666   1               5                  10                  15
4668 Val Thr Pro Thr Lys Ile Asp Asp Ile Pro Gly Leu Ser Asp Thr Ser
4669            20                  25                  30
4671 Pro Asp Xaa Ser Ser Arg Ser Ser Ser Arg Val Arg Phe Ser Ser Arg
4672            35                  40                  45
4674 Glu Ser Val Pro Glu Thr Ser Arg Ser Glu Pro Met Ser Glu Met Ser
4675         50                  55                  60
4677 Gly Ala Thr Thr Ser Leu Ala Thr Val Ala Leu Asp Pro Pro Ser Asp
4678 65                  70                  75                  80
4680 Arg Thr Ser His Pro Gln Asp Val Ile Glu Asp Leu Ser Gln Asn Ser
4681            85                  90                  95
4683 Ile Thr Gly Glu His Ser Gln Leu Leu Asp Asp Gly His Lys Lys Ala
4684            100                 105                 110
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/835,976

DATE: 05/08/2001
TIME: 15:55:17

Input Set : A:\PTO.txt
Output Set: N:\CRF3\05082001\I835976.raw

```
4833 Ser Phe Phe Pro Ser Asn Val Glu Gln Phe Ser Glu Gly Asn Ile Asp
4834             900                 905                 910
4836 Val Trp Trp Ile Val His Asp Gly Gly Met Leu Met Leu Leu Pro Phe
4837         915                 920                 925
4839 Leu Leu Lys Gln His Lys Val Trp Arg Lys Cys Ser Ile Arg Ile Phe
4840     930                 935                 940
4842 Thr Val Ala Gln Leu Glu Asp Asn Ser Ile Gln Met Lys Lys Asp Leu
4843 945                 950                 955                 960
4845 Ala Thr Phe Leu Tyr His Leu Arg Ile Glu Ala Glu Val Glu Val Val
4846                 965                 970                 975
4848 Glu Met His Asp Ser Asp Ile Ser Ala Tyr Thr Tyr Glu Arg Thr Leu
4849             980                 985                 990
4851 Met Met Glu Gln Arg Ser Gln Met Leu Arg His Met Arg Leu Ser Lys
4852         995                 1000                1005
4854 Thr Glu Arg Asp Arg Glu Ala Gln Leu Val Lys Asp Arg Asn Ser Met
4855     1010                1015                1020
4857 Leu Arg Leu Thr Ser Ile Gly Ser Asp Glu Asp Glu Glu Thr Glu Thr
E--> 4858 (025)/025          1030                1035                1040
4860 Tyr Gln Glu Lys Val His Met Thr Trp Thr Lys Asp Lys Tyr Met Ala
4861                 1045                1050                1055
4863 Ser Arg Gly Gln Lys Ala Lys Ser Met Glu Gly Phe Gln Asp Leu Leu
4864             1060                1065                1070
4866 Asn Met Arg Pro Asp Gln Ser Asn Val Arg Arg Met His Thr Ala Val
4867         1075                1080                1085
4869 Lys Leu Asn Glu Val Ile Val Asn Lys Ser His Glu Ala Lys Leu Val
4870     1090                1095                1100
4872 Leu Leu Asn Met Pro Gly Pro Pro Arg Asn Pro Glu Gly Asp Glu Asn
E--> 4873 (105)1105         1110                1115                1120
4875 Tyr Met Glu Phe Leu Glu Val Leu Thr Glu Gly Leu Glu Arg Val Leu
4876                 1125                1130                1135
4878 Leu Val Arg Gly Gly Gly Ser Glu Val Ile Thr Ile Tyr Ser
4879             1140                1145                1150

4882 <210> SEQ ID NO: 17
4883 <211> LENGTH: 712
4884 <212> TYPE: DNA
4885 <213> ORGANISM: Homo sapiens

4887 <400> SEQUENCE: 17
4888 agacaggaat ccggttctgc ccctgcatcc tcctctgctt caccttctg tcagtagtgt 60
E--> 4890 gggttatttt ttcnrgttat gcatgtgcac ctttcccacc agacccaagt ggattgtcga 120
4892 catcaaaaac accgggtggc tttgcataca cctcccccca gccagacctg tggggtattc 180
E--> 4894 acctgataςn caacaggtgg ccgggtgtac accttttagc aatctgatcc acgctatagt 240
4896 cgcctgataa aggtttgcct gcacgcactt ggcccaacta gaacccgtgg gacactcacc 300
4898 agataaagga cttacctcga caggaaactg ggggctgagg ggagggaggc ttcatctgct 360
4900 gccctgagac catggcactg agccttcagc cccggaccag aggggttagc taggtagctc 420
4902 ttcattctga aggaaagaag tcacacaaga ttggcattgt tttgtctttt tgtttttttgt 480
4904 ttttttctct cttaaaaaat atattcacct attggtgatg cactttctag gacagtcggc 540
4906 ttgaattctg agtagaagta ttcttagttg gggctttgtg tgtggtgtga atcaaggtta 600
4908 ttgaaatgtg ttatttttca agttatcttt tgtattgcag tcaaaagtag ctagcgtaag 660
4910 aggaagattt tgcgaggttc ccccccacttt ttttgttctt aaaaagaaca aa     712
```

When numbering the first amino acid on a line, begin the number directly under the first letter of the amino acid.

see item 10 on Error Summary sheet

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/835,976

DATE: 05/08/2001
TIME: 15:55:18

Input Set : A:\PTO.txt
Output Set: N:\CRF3\05082001\I835976.raw

```
4913 <210> SEQ ID NO: 18
4914 <211> LENGTH: 1014
4915 <212> TYPE: DNA
4916 <213> ORGANISM: mouse
4918 <400> SEQUENCE: 18
4919 tagccgccgc ctccagctcc tttgccagga cgagacctct gggaggcagg aatccactct 60
4921 gcttcggcat cctctcgtgg ctctcctctt tctccttcct gtagtgtggg ggtattttcc 120
4923 cgttatgcat gcgcatctct cccaccagac ccaagtggat tatcgacctc aaaaacatcg 180
4925 ggtggctcag cacacacctc ctcccagcca gacctgtggg gtattcacct gatacacaac 240
4927 aggtggctgg tgcacacctt tgcgcaatct gatccacgct cttatacgcc tgataaaggt 300
4929 gggcctgcat gctccgtcct cagctagaac cgtgggacac tcggcagata aaggactaac 360
4931 tacctcatcc ggaccctggg ggttgagcag agggaggcgt caccagctgc tgtgagatca 420
4933 tggcacggag cccacagccc tggaccaggg gagatagcta ggattctgaa agaaccaagt 480
E--> 4935 tatacaggat tagcatcgtt ttgttcttat tttgttttct cgaaGttat ttttcagtta 540
4937 ctggtggggc actttataaa acagctggct tgaattctat cacGgattc ttaattgggc 600
4939 ctttgtgggc tgtaaatcag ggtaattgag ggttttggt tttttttccc cttctatttt 660
4941 tgcaatcaga agtagctagt gtaggaggaa gagttttgt gagctttcc tttttttttt 720
4943 gtcaaaaagg aaagggggg gaaaatgcat ccaccagaag ccaccaccaa gatgtcctca 780
4945 gttcggttca tggtgacacc aactaagatt gatgacattc caggtttgtc agacaccagc 840
4947 ccggacctca gctctcggtc tagttctcga gtaagattta gctcccgaga aagtgtgcca 900
4949 gaaacaagcc gtagtgagcc tatgagcgaa ctgtctgggg ctactacttc tctggcaact 960
4951 gttgccctag atccttccag tgaccggact tctaatcccc aggatgttac ggag 1014
4954 <210> SEQ ID NO: 19
4955 <211> LENGTH: 744
4956 <212> TYPE: DNA
4957 <213> ORGANISM: mouse
4959 <400> SEQUENCE: 19
4960 aagtagatgt ttcacctgaa ggaggagaga agcctttcac tgactcttgc aaggttttcc 60
4962 catatgcttt gaacttaagc aacaatggaa accgtccttt tgttttctga gttgacatag 120
4964 tgccagtctt cattaaagag ggtagtttgt gaaataaagt gttccctgat ctttctcgtg 180
4966 tgaagtaaaa ggacagatga tgagtaaggt tgagatgatg gaacccagag aagtggcaat 240
4968 aaattaaagg aaacaagtgg gagacacagg gtggacagct cttgatgagc tcacgggctt 300
4970 tagctttctg ccgcctggag aaactgccca gacagttgga gttctacagg ttaataacaa 360
4972 taagctgggg tggagtgctt aagcctttta agagaatgat aaacagggcg gaaggcgtgt 420
4974 cttcaagcgt cccactccct tggggctatg gtcacgtggg ctcagtactt cccgattccc 480
4976 agccactgtc tccctaggct gtgctctgag tgtggaggga gagaggcagg gacgcacggg 540
E--> 4978 aaggaaattt aaacgctgaa agcaagggtc tgtGgtaag aacaatgccg cacttcactg 600
4980 tgaccaaggt agaagaccca gaggaggggg cagctggccc cctctctcct gagcccagct 660
4982 cagcagaagt aaaagcccgg attcaggatc cccaagaacc aggtaagtcc tgcgcttgta 720
4984 gcgtcggggg acccacagac tagt 744
5321 <210> SEQ ID NO: 46
5322 <211> LENGTH: 315
5323 <212> TYPE: DNA
5324 <213> ORGANISM: Homo sapiens
5326 <400> SEQUENCE: 46
5327 gtgggggcag agaaacatgg aggaggagca cacctggggt gttcgtaatg atgaggactg 60
5329 cagagactga tgctggcctc cctggcaggc cccacgcatg ggcaccttca tggcgtgta 120
5331 cctgccgtgc ctgcagaaca tctttggcgt catcctcttc ctgcggctca cctgggtggt 180
5333 gggcattgca ggcatcatgg agtccttctg catggtgttc atctgctgct cctgtgtgag 240
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Input Set : A:\PTO.txt
Output Set: N:\CRF3\05082001\I835976.raw

```
E--> 5335 tgacacccct cccctcacca cccctgaca gctggggctt ggcagaggcc tgcnggtgg 300
     5337 gaggtgggag gatgg                                                    315
     6892 <210> SEQ ID NO: 113
     6893 <211> LENGTH: 361
     6894 <212> TYPE: PRT
     6895 <213> ORGANISM: Xenopus laevis
     6897 <400> SEQUENCE: 113
     6898 Arg His Glu Gly Thr Val Leu Leu Gly Asp Tyr Leu Asp Ser His Ala
     6899  1               5                  10                  15
     6901 Glu Ser Gln Ala Ala Glu Gln Ala Leu Lys His Leu Met Glu Gln Glu
     6902              20                  25                  30
     6904 Lys Val Lys Gly Phe Cys Gln Val Val Val Ala Gln Lys Leu Lys Glu
     6905              35                  40                  45
     6907 Gly Leu Ser His Leu Ile Gln Ser Cys Gly Leu Gly Gly Met Arg His
     6908      50                  55                  60
     6910 Asn Thr Val Ile Met Ser Trp Pro Ser Ser Trp Arg Gln Ser Asp Asp
     6911  65                  70                  75                  80
     6913 Ser Arg Ala Trp Lys Ser Phe Ile Thr Thr Ile Arg Val Thr Thr Ala
     6914              85                  90                  95
     6916 Ala Arg Gln Ala Leu Leu Val Ala Lys Asn Val Ser Phe Phe Pro Gly
     6917             100                 105                 110
     6919 Ser Arg Glu Thr Leu Ala Glu Gly His Ile Asp Val Trp Trp Ile Val
     6920             115                 120                 125
     6922 His Asp Gly Gly Met Leu Met Leu Leu Pro Phe Leu Leu Lys Gln His
     6923         130                 135                 140
     6925 Lys Val Trp Arg Lys Cys Lys Met Arg Ile Phe Thr Val Ala Gln Met
     6926 145                 150                 155                 160
     6928 Glu Asp Asn Ser Ile Gln Met Lys Lys Asp Leu Ala Thr Phe Leu Tyr
     6929             165                 170                 175
     6931 His Leu Arg Ile Ala Ala Asp Val Glu Val Val Glu Met His Asp Ser
     6932             180                 185                 190
     6934 Asp Ile Ser Ala Tyr Thr Tyr Glu Arg Thr Leu Met Met Glu Gln Arg
     6935             195                 200                 205
     6937 Ser Gln Met Leu Arg Gln Met Arg Leu Ser Lys Thr Asp Arg Glu Arg
     6938         210                 215                 220
     6940 Glu Ala Gln Leu Val Lys Asp Arg Asn Ser Ile Leu Arg Leu Thr Ser
     6941 225                 230                 235                 240
     6943 Val Gly Ser Asp Asp Asp Glu Asp Thr Glu Ala Ala Pro Glu Arg Val
     6944             245                 250                 255
     6946 His Met Thr Trp Thr Arg Asp Lys His His Ala Val Arg Val Ala Gln
     6947             260                 265                 270
     6949 Ser Lys Pro Met Pro Ser Cys Gln Asp Leu Leu Asn Ile Arg Pro Asp
     6950         275                 280                 285
     6952 Gln Ser Asn Val Arg Arg Met His Thr Ala Val Lys Leu Asn Glu Val
     6953         290                 295                 300
     6955 Ile Val Asn Lys Ser His Asp Ala Lys Leu Val Leu Leu Asn Met Pro
     6956 305                 310                 315                 320
     6958 Gly Pro Pro Arg Asn Pro Gln Gly Asp Glu Asn Tyr Met Glu Phe Leu
     6959             325                 330                 335
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/835,976

DATE: 05/08/2001
TIME: 15:55:18

Input Set : A:\PTO.txt
Output Set: N:\CRF3\05082001\I835976.raw

```
E--> 6961 Glu Val Leu Thr Glu Gly Leu Glu Arg Val Leu Val Val Arg Gly Gly    (x)  delete
     6962         340             345             350
     6964 Gly Thr Glu Val Ile Thr Ile Tyr Ser
E--> 6965         355             360
```

FYI

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220> to
<223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/835,976

DATE: 05/08/2001
TIME: 15:55:19

Input Set : A:\PTO.txt
Output Set: N:\CRF3\05082001\I835976.raw

```
L:14  M:270 C: Current Application Number differs, Replaced Application Number
L:15  M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:59  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:60  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:67  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:68  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:303 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:417 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:423 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:600 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:650 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:651 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:762 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:763 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:910 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:911 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:981 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:1062 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:1176 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:1239 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:1240 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:1371 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:1372 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:1491 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:1492 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:1630 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:1729 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:1819 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:1858 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:1859 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:1926 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:1927 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:2062 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:2063 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:2510 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2511 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2630 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2631 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2738 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2739 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2895 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:2982 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:3063 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:3143 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:3144 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:3203 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:3204 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/835,976

DATE: 05/08/2001

TIME: 15:55:19

Input Set : A:\PTO.txt

Output Set: N:\CRF3\05082001\I835976.raw

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L:3343 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:3344 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:3524 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:3569 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:4858 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:16
M:332 Repeated in SeqNo=16
L:4890 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:17
M:340 Repeated in SeqNo=17
L:4935 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:18
L:4978 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:19
L:5335 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:46
L:6680 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:111
L:6808 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:112
L:6961 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:6961 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:6965 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:113
L:6965 M:252 E: No. of Seq. differs, <211>LENGTH:Input:361 Found:362 SEQ:113
L:7159 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:131
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/835,976

DATE: 05/08/2001
TIME: 15:55:17

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4693 145                 150                 155                 160
4695 Gln Gly Ala Lys Glu His Glu Glu Ala Glu Asn Ile Thr Glu Gly Lys
4696                 165                 170                 175
4698 Lys Lys Pro Thr Lys Thr Pro Gln Met Gly Thr Phe Met Gly Val Tyr
4699                 180                 185                 190
4701 Leu Pro Cys Leu Gln Asn Ile Phe Gly Val Ile Leu Phe Leu Arg Leu
4702           195                 200                 205
4704 Thr Trp Val Val Gly Thr Ala Gly Val Leu Gln Ala Phe Ala Ile Val
4705           210                 215                 220
4707 Leu Ile Cys Cys Cys Cys Thr Met Leu Thr Ala Ile Ser Met Ser Ala
4708 225                 230                 235                 240
4710 Ile Ala Thr Asn Gly Val Val Pro Ala Gly Gly Ser Tyr Phe Met Ile
4711                 245                 250                 255
4713 Ser Arg Ala Leu Gly Pro Glu Phe Gly Gly Ala Val Gly Leu Cys Phe
4714                 260                 265                 270
4716 Tyr Leu Gly Thr Thr Phe Ala Ala Ala Met Tyr Ile Leu Gly Ala Ile
4717                 275                 280                 285
4719 Glu Ile Phe Leu Val Tyr Ile Val Pro Arg Ala Ala Ile Phe His Ser
4720           290                 295                 300
4722 Asp Asp Ala Leu Lys Glu Ser Ala Ala Met Leu Asn Asn Met Arg Val
4723 305                 310                 315                 320
4725 Tyr Gly Thr Ala Phe Leu Val Leu Met Val Leu Val Val Phe Ile Gly
4726                 325                 330                 335
4728 Val Arg Tyr Val Asn Lys Phe Ala Ser Xaa Phe Leu Ala Cys Val Ile
4729           340                 345                 350
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4732           355                 360                 365
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4735           370                 375                 380
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4738 385                 390                 395                 400
4740 Val Pro Ser Lys Leu Trp Gly Phe Phe Cys Asn Ser Ser Gln Phe Phe
4741           405                 410                 415
4743 Asn Ala Thr Cys Asp Glu Tyr Phe Val His Asn Asn Val Thr Ser Ile
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4747           435                 440                 445
4749 Ser Asn Tyr Leu Pro Lys Gly Glu Ile Ile Glu Lys Pro Ser Ala Lys
4750           450                 455                 460
4752 Ser Ser Asp Val Leu Gly Ser Leu Asn His Glu Tyr Val Leu Val Asp
4753 465                 470                 475                 480
4755 Ile Thr Thr Ser Phe Thr Leu Leu Val Gly Ile Phe Phe Pro Ser Val
4756           485                 490                 495
4758 Thr Gly Ile Met Ala Gly Ser Asn Arg Ser Gly Asp Leu Lys Asp Ala
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/835,976

DATE: 05/08/2001
TIME: 15:55:17

Input Set : A:\PTO.txt
Output Set: N:\CRF3\05082001\I835976.raw

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4765     530               535               540
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4768 545 ·               550               555               560
4770 Val Gly Thr Leu Ser Trp Pro Ser Pro Trp Val Ile Val Ile Gly Ser
4771               565               570               575
4773 Phe Phe Ser Thr Cys Gly Ala Gly Leu Gln Ser Leu Thr Gly Ala Pro
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4776 Arg Leu Leu Gln Ala Ile Ala Lys Asp Asn Ile Ile Pro Phe Leu Arg
4777         595               600               605
4779 Val Phe Gly His Ser Lys Ala Asn Gly Glu Pro Thr Trp Ala Leu Leu
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4782 Leu Thr Ala Ala Ile Ala Glu Leu Gly Ile Leu Ile Ala Ser Leu Asp
4783 625               630               635               · 640
4785 Leu Val Ala Pro Ile Leu Ser Met Phe Phe Leu Met Cys Tyr Leu Phe
4786         . 645               650               655
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4798 705               710               715               720
4800 Gly Ala Glu Lys Glu Trp Gly Asp Gly Ile Arg Gly Leu Ser Leu Ser
4801               725               730               735
4803 Ala Ala Arg Phe Ala Leu Leu Arg Leu Glu Glu Gly Pro Pro His Thr
4804               740               745               750
4806 Lys Asn Trp Arg Pro Gln Leu Leu Val Leu Leu Lys Leu Asp Glu Asp
4807         755               760               765
4809 Leu His Val Lys His Pro Arg Leu Leu Thr Phe Ala Ser Gln Leu Lys
4810     770               775               780
4812 Ala Gly Lys Gly Xaa Thr Ile Val Gly Ser Val Ile Val Gly Asn Phe
4813 785               790               795               800
4815 Leu Glu Asn Tyr Gly Glu Ala Leu Ala Ala Glu Gln Thr Ile Lys His
4816               805               · 810               815
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4819               820               825               830
4821 Ala Lys Leu Arg Glu Gly Ile Ser His Leu Ile Gln Ser Cys Gly Leu
4822         835               840               845
4824 Gly Gly Met Lys His Asn Thr Val Val Met Gly Trp Pro Asn Gly Trp
4825     850               855               860
4827 Arg Gln Ser Glu Asp Ala Arg Ala Trp Lys Thr Phe Ile Gly Thr Val
4828 865               870               875               880
4830 Arg Val Thr Thr Ala Ala His Leu Ala Leu Leu Val Ala Lys Asn Ile
4831               885               890               895
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<110> Mount, David B.
Delpire, Eric
Gamba, Gerardo
Alfred L. George, Jr.

<120> PURIFIED AND ISOLATED POTASSIUM-CHLORIDE COTRANSPORTER NUCLEIC ACIDS AND POLYPEPTIDES THERAPEUTIC AND SCREENING METHODS USING SAME

<130> Attorney Docket No. 1242-26-2

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Glu Gly Pro Glu Pro Glu Arg Pro Ser Pro Gly Asp Gly Asn Pro Arg
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gaa aac agc cca ttc ntc aac aat gtc gag gtg gaa caa gag agc ttc   193
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